Technological Forecasting and Social Change

An International Journal

Volume 39 (1991) Contents

Numbers 1–2 (March/April)

NEBOJŠA NAKIĆENOVIĆ and ARNULF GRÜBLER (Laxenburg, Austria)	Introduction to the Special Issue	1
JESSE H. AUSUBEL (New York, NY)	Rat-Race Dynamics and Crazy Companies: The Diffusion of Technologies and Social Behavior	11
GEORGE MODELSKI and GARDNER PERRY III (Seattle, WA)	Democratization in Long Perspective	23
WILLIAM S. PEIRCE (Cleveland, OH)	Innovation and Diffusion in the "Single Europe": Institutional Structure and Industrial Prospects for the European Communities	35
DIRK-JAN F. KAMANN (Groningen, The Netherlands) **and PETER NIJKAMP** (Amsterdam, The Netherlands)	Technogenesis: Origins and Diffusion in a Turbulent Environment	45
GERALD SILVERBERG (Maastricht, The Netherlands)	Adoption and Diffusion of Technology as a Collective Evolutionary Process	67
GERHARD ROSEGGER (Cleveland, OH)	Diffusion Through Interfirm Cooperation: A Case Study	81
MARYELLEN R. KELLEY (Pittsburgh, PA) **and HARVEY BROOKS** (Cambridge, MA)	External Learning Opportunities and the Diffusion of Process Innovations to Small Firms: The Case of Programmable Automation	103
JOHN E. TILTON (Golden, CO)	Material Substitution: The Role of New Technology	127
ROBERT U. AYRES and IKE EZEKOYE (Pittsburgh, PA)	Competition and Complementarity in Diffusion: The Case of Octane	145
ARNULF GRÜBLER (Laxenburg, Austria)	Diffusion: Long-Term Patterns and Discontinuities	159
NEBOJŠA NAKIĆENOVIĆ (Laxenburg, Austria)	Diffusion of Pervasive Systems: A Case of Transport Infrastructures	181
PAUL J.M. DIEDEREN RENÉ P.M. KEMP JOAN MUYSKEN and G. ROMBOUT DE WIT (Maastricht, The Netherlands)	Diffusion of Process Technology in Dutch Banking	201
JONNY HJELM (Umeå, Sweden)	The Chain Saw in Swedish Forestry	221
	Announcements	233

Number 3 (May)

GENE ROWE **GEORGE WRIGHT** **and FERGUS BOLGER** (Bristol, England)	Delphi: A Reevaluation of Research and Theory	235
THOMAS WEBLER (Worcester, MA) **DEBRA LEVINE** (New York, NY) **HORST RAKEL** **and ORTWIN RENN** (Worcester, MA)	A Novel Approach to Reducing Uncertainty: The Group Delphi	253
RICHARD CABE (Las Cruces, NM)	Equilibrium Diffusion of Technological Change Through Multiple Processes	265
VIJAY MAHAJAN (Austin, TX) **and EITAN MULLER** (Tel Aviv, Israel)	Pricing and Diffusion of Primary and Contingent Products	291
ARIEL DINAR (Davis, CA) **and DAN MAROM** (Tel Aviv, Israel)	Rates and Patterns of Computer Adoption and Use in Agricultural Extension	309

Column

HAROLD A. LINSTONE (Lake Oswego, OR)	*From My Perspective* The Glory and Curse of Being No. 1	319

Book Reviews

JOSEPH F. COATES (Washington, DC)	*Information Society and Spatial Structure* (H. Ernste and C. Jaeger, eds.)	327
JOSEPH F. COATES (Washington, DC)	*Science and Technology Advice to the President, Congress, and Judiciary* (William T. Golden, ed.); *Report of the Miller Center Commission on the Presidency and Science Advising* (Miller Center of Public Affairs); *The Presidency and Science Advising* (Kenneth W. Thompson, ed.); *White House Office of Science and Technology Policy: An Analysis* (Genevieve J. Knezo); and *Science and Technology Advice in the White House: Recommendations for President-Elect George Bush* (National Academy of Sciences)	331
JOSEPH P. MARTINO (Sidney, OH)	*Without the Bomb* (Mitchell Reiss)	335

Number 4 (July)

THEODORE J. GORDON (Glastonbury, CT)	Notes on Forecasting a Chaotic Series Using Regression	337
KENYON B. DE GREENE (Woodland Hills, CA)	Large Technology-Based Systems and the Need for Paradigm Shift	349
PATRIZIA BONANZINGA CLAUDIO LEPORELLI and ENRICO NICOLÒ (Rome, Italy)	The Diffusion of a New Telecommunication Service: Network Constraints and Service Quality in a Dynamic Interpretative Model	363
MICHAEL R. W. BOMMER RALPH E. JANARO and DEBORAH C. LUPER (Potsdam, NY)	A Manufacturing Strategy Model for International Technology Transfer	377
JONG-TSONG CHIANG (Cambridge, MA)	Government Funding Strategy in Technology Programs	391
CARLO F. MARAZITA (Santa Barbara, CA)	Technology Transfer in the United States: Industrial Research at Engineering Research Centers versus the Technological Needs of U.S. Industry	397
	Column	
JOSEPH F. COATES (Washington, DC)	*From My Perspective* Immigration: Then, Now, and in the Future	411
	Book Review	
HAROLD A. LINSTONE (Lake Oswego, OR)	*Powershift* (Alvin Toffler)	417
	Volume 39 Author Index	421
	Volume 39 Book Review Index	421
	Volume 39 Subject Index	422